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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/214,840	01/13/1999	KLAUS-DIETER HAMMER	051009/0114	8132

7590

07/24/2003

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EXAMINER

HON, SOW FUN

ART UNIT

PAPER NUMBER

1772

22

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding. -

Office Action Summary

Application No.	Applicant(s)	
09/214,840	HAMMER ET AL.	
Examiner	Art Unit	
Sow-Fun Hon	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-11 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,9-11,13 and 21-24 is/are rejected.
- 7) ☒ Claim(s) 2,4,5 and 14-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other:

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/19/03 has been entered.

### ***Response to Amendment***

#### ***Rejections Withdrawn***

2. The 35 U.S.C. 112 1<sup>st</sup> and 2<sup>nd</sup> paragraph rejections in Paper # 15 (mailed 11/19/02) have been withdrawn due to Applicant's affirmation in Paper # 17 (filed 03/19/03) of the broad interpretation of the claims used in the prior art rejections.

3. The 35 U.S.C. 102(e) rejection of claims 6, 9-11, 13, 21-23 as being anticipated by Hammer et al. has been withdrawn due to Applicant's amendment in Paper # 17 (filed 03/19/03).

#### ***Rejections Repeated***

4. The 35 U.S.C. 103(a) rejection of claims 1, 3 over Hammer et al. has been repeated for the same reasons previously of record in Paper # 15 (mailed 11/19/02).

#### ***New Rejections***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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6. Claims 6, 9-11, 13, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al.

Hammer et al. has a cellulose-based tubular foodstuffs casing (abstract) wherein the casing is of cellulose hydrate and is fiber-reinforced. The casings have good peelability up to the end of the maturation period (column 3, lines 35-65). Hammer et al. teaches that the foodstuff (sausage) is mold-matured meaning that mold is present on the casing surface. Mold secretes the cellulase enzyme. The casing surface is treated with cellulase (cellulytic enzymes) in a simulation of the real environment, yielding a weight loss (column 5, lines 5-15). A release preparation (oil emulsion) is added to prevent adhesion or sticking together for storage of the rolls of tubular casings before stuffing (column 3, lines 5-10).

Applicant is reminded that even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). In the absence of clear comparative data, it is the examiner's position that the foodstuffs casing of Hammer et al. is the same as that of Applicant's regardless of the cellulase process limitations since Hammer et al. teaches the mold-maturation process which generates the cellulase enzyme.

In claim 22, the cling properties of the foodstuff casing during process limitation of "during frying" are considered the same as those of the filled foodstuff casing of Hammer et al.

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in the absence of clear comparative data, or of further defining limitations describing the composition of the filled foodstuff casing itself.

In claim 23, the peel properties of the foodstuff casing are considered the same as those of the foodstuffs casing of Hammer et al. in the absence of clear comparative data, or of further defining limitations describing the composition of the filled foodstuff casing itself.

In addition, in claim 6, the term “based on cellulose hydrate” is being interpreted as an open-ended limitation which includes other components in the foodstuff casing, and the presence of, or absence of, other components in the casing.

Although Hammer et al. fails to specify that the fiber is made of hemp, hemp fiber-reinforced cellulose sausage casings are notoriously well known in the art.

Although Hammer et al. fails to teach the step of permanent inactivation of the cellulase, it would have been obvious to one of ordinary skill in the art that the cooking step via frying or boiling of the filled foodstuffs casing in order to render the article palatable to the digestive system would permanently inactivate the cellulase (an enzyme secreted by mold during mold maturation of the sausage), and that the temperature would rise above 70°C during the cooking (water boils at 100°C). Although the period of time between the placement of the cellulase onto the surface of the casing from the start of the mold maturation process step and the permanent inactivation of the cellulase when the temperature rises above 70°C during the cooking process step is not predictable, it is a finite one, and thus reads on the limitation of “time-limited action”.

***Response to Arguments***

7. Applicant's arguments filed 03/19/03 with respect to the prior art obviousness rejection of claims 1, 3 have been fully considered but they are not persuasive.

8. Applicant argues that Hammer fails to disclose modification of the surface of a tubular foodstuff casing by the time-limited action of at least one cellulase to produce a modified surface comprising inactivated cellulase since Hammer relates to a casing which is intended to impede, or prevent, the penetration of cellulase, and since the treatment with cellulase as described by Hammer is nothing more than a test method used to measure the efficiency/effectiveness of the impregnation of the casing.

Applicant is respectfully apprised that it is the Examiner's position that the test method is a simulation of cellulase degradation of the food casing in the actual environment, meaning that there is at least one cellulase acting on the food casing in the actual environment. Cooking of the encased food product involves heating the food product which deactivates the cellulase permanently. Hammer et al. teaches that the casing is made to "impede or possibly prevent the penetration of cellulytic enzymes such as cellulase" so that "separation of the casing during maturation is prevented", yet "easy peeling of the casing after (mold) maturation is still ensured" ('179, column 1, lines 40-55). This implies that there is maybe one cellulase or possibly none which penetrated the casing, but definitely more than one cellulase on the outer surface of the casing. The time the cellulases on the outer surface are allowed to act on the casing depends on when the encased sausage is cooked, whereupon the cellulases are permanently inactivated.

9. Applicant's main arguments against Hammer et al. appear to focus on the time-limited surface roughening by the cellulase prior to the permanent deactivation of the cellulase on the

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surface of the casing, which would give a different surface roughened profile than that of the natural process of cellulase acting during the manufacture and storage of the sausage casings before cooking, or the deliberate damaging of the casings for recycling. Applicant is advised to define the time limit such as the one described in claim 4, in order to distinguish the finished product casing over the presently existing prior art.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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Sow-Fun Hon  
07/21/03

*Alexander S. Thomas*

ALEXANDER S. THOMAS  
PRIMARY EXAMINER